

***EUROLEON NOSTRAS* (FOURCROY, 1785)
(NEUR.: MYRMELEONTIDAE) CONFIRMED AS BREEDING IN
BRITAIN**

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DURING AN invertebrate survey of Suffolk Sandlings Heaths between 6 and 9 August 1996 we were intrigued to notice several small conical pits at the base of a small cliff formed by a partially buried root at Walberswick National Nature Reserve. Being aware of the recent discovery of adults of the ant-lion *Euroleon nostras* at Minsmere (Mendel, *antea*: 1-5) we decided to investigate the pits further and were delighted to uncover a larval ant-lion from the first one (Plate I, Fig. 6).

Further searches in this area revealed at least three hundred pits on a low bank about two hundred metres long. All were facing approximately south and most were at the base of small cliffs (Plate I, Fig. 5), although many were under overhanging heather. Pits were not found where the bank was heavily shaded by trees. Pits tended to occur in small aggregations and, from the sharp edges of the pits, most would appear to have been occupied. No pits were seen elsewhere on the reserve, although searches several days later revealed a small aggregation on Walberswick Common immediately to the east.

The next day was spent at Minsmere itself; here pits were found immediately alongside the entrance road in the vicinity of the root-plate of a large wind-blown tree, some pits were quite high up on the root-plate and some were larger than others. Further pits were found in the vicinity of the toilet block mentioned in Mendel (*op. cit.*). However, the real surprise was finding in excess of a thousand pits on a south-facing sandy bank amongst heather and the root-plates of wind-blown pines. This area had been cleared of pine several years earlier and this had obviously made excellent habitat for the ant-lions. Only one adult was disturbed from the heather during half-an-hour's searching during the mid-morning by three people, despite the large population clearly present.

Pits were made on all surfaces open to the sun, including out on the flat, but the majority were again associated with small cliffs. The pits ranged in size from one to four centimetres diameter. Some pits were at the very top of root-plates. No pits were found in north-facing or heavily shaded locations in this area.

Further pits were found associated with wind-blown root-plates in a recently coppiced area nearer the visitor centre and a few were found under over-hanging bracken alongside the entrance road. In all locations it was essential that the sand was loose, but not regularly disturbed; the presence of rabbit burrows under a root-plate meant that there were no pits present.

We returned to the original root-plate at 18.00 hours the following day in order to take some photographs and were pleased to find a newly emerged adult hanging up drying its wings. We quickly discovered twelve further adults all hanging up drying their wings and, whilst we watched, one emerged from the loose sand with its wings all crumpled up. This individual proceeded to climb up the root-plate and, having found a hanging place, pump up its wings. There was quite a strong breeze blowing and the adults were being shaken all the time, but showed no inclination to move from their chosen place. One further adult was found in which the wings and abdomen had not extended properly, echoing the specimen found by the Welchs in 1994 (Medel, *op cit.*). By 21.00 hours all but three of the twelve seen had disappeared; one of these was the deformed one and the last two flew off within half an hour. The next morning there was no sign of any adults in the vicinity of the root-plate, as indeed had been the situation on the first morning.

Further searches during the survey period revealed a large population on nearby Dunwich Heath, with pits under heather bushes alongside the tracks over the heaths, out on the open sand and at the base of small cliffs. Once again, no pits were found in north-facing or heavily shaded situations. A further small population was found on Blaxhall Common, some fifteen kilometres to the south-west of Minsmere.

Overall, we estimate having seen over three thousand pits during four days' survey. The majority of these were found during searches for other insects and were not the result of targeted searching. We are in no doubt as to the long-established nature of these populations. Considering that we knew ourselves to be within large populations but only found so few fully adult specimens (which could easily have been passed over as damselflies) we are not surprised that records have been sporadic; it is much more productive to know something about where to look for larval pits and search for these.

Acknowledgements

We thank English Nature, Suffolk Wildlife Trust and The Royal Society for the Protection of Birds for their support of the above survey, David Sheppard, Cliff Waller (English Nature), and Richard Wilson (RSPB) for their excellent assistance and guidance during the survey, and Doug Merrick for providing photographs featured in Plate I.
